

CLAIMS

1. A turbine motor for use as a drive for a bell-shaped plate of a rotary atomizer comprising:

a housing;

a drive shaft of said motor a having a bearing unit;

a turbine wheel drivably arranged upon said drive shaft rotatably disposed within a drive channel of said housing and having blade elements disposed upon a carrier surface;

an inlet for providing a driving gas through said housing and into driving contact with said blade elements of said turbine wheel; and

a shielding element positioned adjacent said blade elements thereby limiting said drive channel.

2. A turbine motor according to Claim 1, wherein said turbine wheel is formed by two disk elements lying in an opposed relationship in an axial direction and being limited by said drive channel.

3. A turbine motor according to Claim 1, wherein said shielding element comprises a disk operably connected to one of said drive shaft and said turbine wheel thereby rotating with said turbine wheel.

4. A turbine motor according to Claim 1, wherein said shielding element is fixedly attached to said turbine blades.

5. A turbine motor according to Claim 1, wherein said shielding element is welded to said turbine blades.

6. A turbine motor according to Claim 1, wherein said shielding element defines at least one outlet for said driving gas.

7. A turbine motor according to Claim 1, wherein said inlet for driving gas is positioned in said housing spaced from said drive shaft in a radial direction.

8. A turbine motor according to Claim 6, wherein said opening defined by said shielding element includes a cross-sectional area greater than a smallest cross-sectional area of said inlet.

9. A turbine motor according to Claim 8, wherein said inlet is configured as a Laval nozzle having a cross-section expanding after narrowing adjacent said opening leading into the drive channel.